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ABSTRACT

Britain's National Vocational Qualifications (NVQs) are work qualifications that measure what an employee or potential employee can do as well as how much he or she knows and understands about a particular job. Used as written proof of usable workplace skills that can be put to profitable use by an employer, NVQs range from basic Level 1, for everyday routine tasks, up to Level 5 professional skills, providing a way to develop skills and build a career ladder that benefits both employer and employee. This packet contains NVQ competency lists for the following information technology occupations: (1) information technology, level 1 (central computer operations, network computer operations, and stand-along computer operations; (2) information technology, level 3 (central computer services supervision; computer network system investigation and installation, information systems analysis and design, information systems delivery and support supervision, information systems design and production, information systems installation and support supervision, multiuser computer system investigation and installation, network computer services supervision, stand-alone computer services supervision, and stand-alone computer system selection and installation; and (3) information technology, level 4 (central computer services management, computer network system selection and installation supervision, customer implementation support, information systems analysis, information systems production supervision, multiuser computer system selection and installation supervision, and network computer services management; and (4) information technology for end users, levels 1-3 (using information technology). (KC)

ED 389 841

Information Technology, Level 1, Level 3, and Level 4
Information Technology for End Users, Levels 1-3
National Vocational Qualifications

Business and Technology Education Council
London, England

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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NVQs

– better qualifications for better jobs

NATIONAL VOCATIONAL QUALIFICATIONS

Information Technology

LEVEL 1

3

NVQs – better qualifications for work

NVQs are the work qualifications that employers have always been asking for, because NVQs measure what you can do, as well as how much you know and understand about the job you do.

Practical, work-based qualifications

An NVQ is the ideal qualification for people who intend to work, or already work, in a particular industry, service or business. On-the-job training is more relevant than book-learning, so the ability to run an organisation or repair a motor vehicle is what counts, rather than having GCSEs.

For every industry and business

NVQs are already available for most kinds of work (and the range is constantly being added to, in order to meet new employment needs).

NVQs are written proof of usable workplace skills which can be put to profitable use by an employer straight away. They range from basic Level 1, for everyday routine tasks, up to Level 5 professional skills – so there's a way to develop skills and build a career ladder that benefits both employer and employee.

For every kind of person

There is training for NVQs, but there's no laid-down course of study: someone – anyone of any age, provided they're over 16 – who can prove the ability to do the job, with the required degree of skill, is entitled to be assessed for an NVQ.

An NVQ is recognition and certification of someone's ability to perform specific tasks. It may involve study to reach the appropriate level. On the other hand, some candidates or employees may already possess the necessary skills – acquiring an NVQ certificate can be valuable recognition of those skills, especially in areas where previously no formal qualification existed.

NVQs
Information Technology
Level 1

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Central Computer Operation NVQ Level 1

Receive hardware

Take delivery of hardware

Take care of and operate system peripherals

Carry out defined equipment cleaning and basic maintenance procedures

Operate and monitor peripheral hardware

Respond to peripheral messages

Set up and unload computer system peripherals

Carry out application set-up procedures

Remove output from printer and store prior to distribution

Monitor for and respond to hardware problems

Monitor hardware for faults

Recognise, record and respond to problems as they occur

Maintain records of activities

Handle data storage media

Take media from store

Return media to storage

Handle storage media safely

Label storage media

Clean storage media

Handle consumables

Draw and record usage of consumables

Network Computer Operation NVQ Level 1

Receive hardware

Take delivery of hardware

Monitor for and respond to hardware problems

Monitor hardware for faults

Recognise, record and respond to problems as they occur

Maintain records of activities

Operate network equipment

Start up network

Operate and monitor network

Close down network

Maintain records of activities

Take care of network equipment

Carry out defined equipment cleaning and basic maintenance procedures

Set up network hardware for use

Maintain records of activities

Handle data storage media

Take media from store

Return media to storage

Handle storage media safely

Label storage media

Clean storage media

Handle consumables

Draw and record usage of consumables

Stand Alone Computer Operation NVQ Level 1

Receive hardware

Take delivery of hardware

Take care of and operate stand alone computer system hardware

Carry out defined equipment cleaning and basic maintenance procedures

Set up hardware ready for use

Power up and power down equipment

Use software on stand alone computer system

Initiate software

Create new files

Edit existing files

Output data/text as required

Remove output from printer/plotter

Distribute all job output

Terminate programs

Operate stand alone computer system

Set up necessary media/penpherals for use

Start up system

Recognise errors and take appropriate action

Use operating systems commands to manage files

Close down system

Maintain data stored on data storage media

Monitor and control the contents of data storage media

Monitor and maintain the storage of files

Protect data stored on media

Carry out data restore operations using utility programs

Handle data storage media for stand alone computer system

Take storage media from store

Use storage media

Clean storage media

Store storage media

Handle consumables

Draw and record usage of consumables

BTEC – builds better qualifications for work

BTEC is the Business & Technology Education Council, an independent body which awards National Vocational Qualifications (NVQs).

BTEC authorises firms or colleges to carry out NVQ training and assessment. It also appoints external verifiers who check that trainees' work meets NVQ standards.

BTEC itself does not do NVQ training. But it constantly monitors the providers and assessors to ensure that NVQ trainees develop the necessary skills to the standards required by industry.

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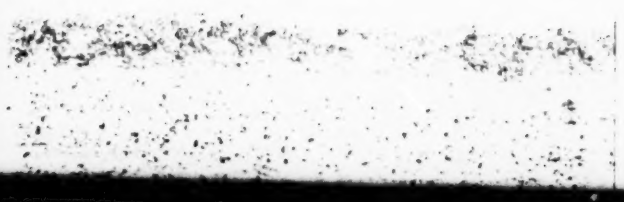

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BTEC

NVQs

– better qualifications for better jobs

NATIONAL VOCATIONAL QUALIFICATIONS

Information Technology

LEVEL 3

11

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Information Technology
Level 3

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Central Computer Services Supervision NVQ Level 3

All of these units

Supervise and control systems operation

Monitor systems performance against agreed service levels

Balance daily schedule in light of short term changes

Maintain records in the computer room

Carry out shift handover

Control system support

Schedule tactical systems software maintenance periods

Monitor systems software maintenance

Schedule tactical engineering maintenance periods

Monitor engineering support

Control application service schedules

Take over shift and establish status

Control progress of applications schedules

Control available services according to schedule

Respond to unscheduled requests

Carry out shift handover

Supervise provision of application services

Maintain records of customer requirements

Maintain records of system resources available

Maintain records of pattern of use of system resources

Maintain master schedule

Monitor activities and respond to customer enquiries

Maintain application system operating procedures

Supervise problem identification and resolution

Initiate hardware or software diagnostic procedures

Liaise with maintenance provider in reporting both equipment and service failure

Liaise with customers over problems likely to affect service levels

Ensure problems are resolved

Analyse problem information and statistics

Take part in review of problem resolution procedures

Plan and define changes to hardware or software configuration

Plan change to be executed

Create individual change instructions

Review change plan after execution

Control security procedure

Supervise physical security procedures

Supervise hardware security procedures

Supervise data security procedures

Supervise personnel security procedures

Plus any two of the following 4 units

Supervise delivery and acceptance of hardware

Arrange delivery of equipment

Carry out acceptance procedures

Document hardware configuration as installed or revised

Assist user in use of new facilities

Manage data storage media library

Maintain data storage media storage conditions and procedures

Ensure that additional storage media requirements are met

Control destruction of sensitive storage media or consumables

Monitor procedures for media library management

Control software security procedures

Supervise software security procedures

Monitor and maintain consumable stocks

Monitor deliveries of stocks

Ensure stock checks and movement audits are carried out regularly

Ensure that additional consumables requirements are met

Ensure records are maintained

Computer Network System Investigation & Installation NVQ Level 3

Investigate and document possible hardware suppliers

Research possible hardware solutions

Identify possible suppliers of hardware

Investigate and document possible software suppliers

Research possible software solutions

Identify possible suppliers of software

Supervise the acceptance of bought-in software package

Establish acceptance criteria from the requirements specification

Define package test plans

Define package test data

Define test schedule

Evaluate results

Design hardware installation verification tests

Define tests to exercise essential features

Define test data requirements and obtain approvals

Define test schedule

Observe physical hardware installation and engineers tests

Evaluate results

Produce final report

Supervise delivery and acceptance of network

Arrange delivery of equipment

Carry out acceptance procedures

Document network configuration as installed or revised

Assist user to make use of new facilities

Plan and define changes to hardware or software configuration

Plan change to be executed

Create individual change instructions

Review change plan after execution

Information Systems Analysis & Design NVQ Level 3

Investigate the requirements for an information system

Review and agree the information required to be gathered

Gather information

Assemble results

Explore alternative designs for an information system

Review and accept requirements and constraints

Prepare outline designs for each alterative to be offered

Create functional prototype(s) of selected alternative design(s) to assist in selection process

Design an information system at a detailed level

Review and accept the design requirements and criteria

Produce a detailed design

Document the design

Investigate customer satisfaction with information systems support

Review live operations of the system

Identify modifications required and investigate effects

Investigate the effectiveness of an information system

Agree objectives

Collect data

Document findings

Information Systems Delivery & Support Supervision NVQ Level 3

All of these units

Assemble and test a completed information system

Prepare system test data

Set up and test the environment ready for accepting completed programs

Set up the system test data, dummy databases and other required elements

Install the system into the test environment

Carry out controlled tests

Evaluate all results

Report on tests

Supervise the installation of software

Agree schedule and targets with staff and customer

Establish sources of required start up data

Agree test tasks

Create user and operational documentation

Agree documentation tasks

Test security and data protection procedures

Monitor task execution and completion

Product installation deliverables and report

Supervise information system support activities

Define support requirements with customer

Monitor delivery of support

Review provision with the customer

Plus any two of these 5 units

Investigate and document possible hardware suppliers

Research possible hardware solutions

Identify possible suppliers of hardware

Investigate and document possible software suppliers

Research possible software solutions

Identify possible suppliers of software

Supervise the acceptance of bought-in software package

Establish acceptance criteria from the requirements specification

Define package test plans

Define package test data

Define test schedule

Evaluate results

Design hardware installation verification tests

Define tests to exercise essential features

Define test data requirements and obtain approvals

Define test schedule

Observe physical hardware installation and engineers tests

Evaluate results

Produce final report

Investigate the effectiveness of an information system

Agree objectives

Collect data

Document findings

Information Systems Design & Production NVQ Level 3

Design an information system at a detailed level

Review and accept the design requirements and criteria

Produce a detailed design

Document the design

Design the software components of an information system

Accept component design requirements

Define outline design of system components

Define module breakdown

Take part in component and module design reviews

Assemble and test a completed information system

Prepare system test data

Set up and test the environment ready for accepting completed programs

Set up the system test data, dummy databases, and other required elements

Install the system into the test environment

Carry out controlled tests

Evaluate all results

Report on tests

Supervise the installation of software

Agree schedule and targets with staff and customer

Establish sources of required start up data

Agree test tasks

Create user and operational documentation

Agree documentation tasks

Test security and data protection procedures

Monitor task execution and completion

Produce installation deliverables and report

Plan and control the production of software components

Review and accept the component specification

Agree targets for component production

Monitor progress against plan

Monitor quality of work

Carry out regular technical reviews

Report to manager

Respond to progress and resource problems

Information Systems Installation & Support Supervision NVQ Level 3

All of these units

Assemble and test a completed information system

Prepare system test data

Set up and test the environment ready for accepting completed programs

Set up the system test data, dummy databases and other required elements

Install the system into the test environment

Carry out controlled tests

Evaluate all results

Report on tests

Provide customer training

Develop training materials

Participate in training delivery

Supervise the installation of software

Agree schedule and targets with staff and customer

Establish sources of required start up data

Agree test tasks

Create user and operational documentation

Agree documentation tasks

Test security and data protection procedures

Monitor task execution and completion

Produce installation deliverables and report

Investigate customer satisfaction with information systems support

Review live operations of the system

Identify modifications required and investigate effects

Supervise information system support activities

Define support requirements with customer

Monitor delivery of support

Review provision with the customer

Plus any one of these 3 units

Investigate and document possible hardware suppliers

Research possible hardware solutions

Identify possible suppliers of hardware

Investigate and document possible software suppliers

Research possible software solutions

Identify possible suppliers of software

Supervise the acceptance of bought-in software package

Establish acceptance criteria from the requirements specification

Define package test plans

Define package test data

Define test schedule

Evaluate results

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Multi-User Computer System Investigation & Installation NVQ Level 3

Investigate and document possible hardware suppliers

Research possible hardware solutions

Identify possible suppliers of hardware

Investigate and document possible software suppliers

Research possible software solutions

Identify possible suppliers of software

Supervise acceptance of bought-in software package

Establish acceptance criteria from the requirements specification

Define package test plans

Define package test data

Define test schedule

Evaluate results

Design hardware installation verification tests

Define test to exercise essential features

Define test data requirements and obtain approvals

Define test schedule

Observe physical hardware installation and engineers' tests

Evaluate results

Produce final report

Supervise delivery and acceptance of hardware

Arrange delivery of equipment

Carry out acceptance procedures

Document hardware configuration as installed or revised

Assist user in use of new facilities

Plan and define changes to hardware or software configuration

Plan change to be executed

Create individual change instructions

Review change plan after execution

Network Computer Services Supervision NVQ Level 3

All of these units

Supervise delivery and acceptance of network

Arrange delivery of equipment

Carry out acceptance procedures

Document network configuration as installed or revised

Assist user to make use of new facilities

Supervise network performance and configuration

Monitor the network performance against agreed service levels

Maintain network configuration documentation

Implement configuration changes to network

Control network support

Schedule tactical network equipment maintenance periods

Monitor engineering support

Schedule tactical network software maintenance periods

Monitor network software support

Supervise network problem identification and resolution

Initiate hardware or software diagnostic procedures

Liaise with maintenance provider in reporting both equipment and service failure

Liaise with customers over problems likely to affect service levels

Ensure problems are resolved

Analyse problem information and statistics

Take part in review of problem resolution procedures

Plan and define changes to hardware or software configuration

Plan change to be executed

Create individual change instructions

Review change plan after execution

Control network security procedures

Supervise physical security procedures

Supervise network security procedures

Supervise software security procedures

Supervise personnel security procedures

Supervise documentation security procedures

Plus one of these 2 units

Manage data storage media library

Maintain data storage media storage conditions and procedures

Ensure that additional storage media requirements are met

Control destruction of sensitive storage media or consumables

Monitor procedures for media library management

Monitor and maintain consumable stocks

Monitor deliveries of stocks

Ensure stock checks and movement audits are carried out regularly

Ensure that additional consumables requirements are met

Ensure records are maintained

Stand Alone Computer Services Supervision NVQ Level 3

Install and configure stand alone systems hardware

Agree suitable hardware configuration with user

Agree suitable configuration of machine and peripherals for the required use

Plan agreed hardware installation or re-configuration

Oversee installation of hardware

Install any additional boards required

Oversee any re-configuring or up-grading of system

Install applications for users on stand alone system

Agree suitable software and hardware with user

Plan agreed application installation

Install, configure and customise software packages to users requirements

Set up software operating environment for package

Monitor and maintain complete stand alone system

Set up and monitor routine maintenance system

Diagnose problems through systematic testing procedures

Liaise with maintenance and repair organisations

Monitor maintenance of software and hardware

Train and support users of stand alone system

Demonstrate the operation of the configured system to the user

Provide instruction in data back-up and recovery

Provide basic training in using software packages and hardware configurations

Diagnose user hardware and software problems and suggest solutions

Manage data storage media library in stand alone environment

Maintain data storage media storage conditions and procedures

Ensure that additional data storage media requirements are met

Control destruction of sensitive data storage media or consumables

Monitor procedures for data media library management

Control security procedures in stand alone environment

Supervise physical security procedures

Supervise hardware security procedures

Supervise software security procedures

Supervise data security procedures

Supervise personnel security procedures

Supervise documentation security procedures

Monitor and maintain consumable stocks

Monitor deliveries of stocks

Ensure stock checks and movement audits are carried out regularly

Ensure that additional consumable requirements are met

Ensure records are maintained

NVQ Stand Alone Computer System Selection & Installation NVQ Level 3

Evaluate and select hardware in a single user environment

Research possible hardware solutions

Evaluate the hardware against the criteria

Review results of evaluation and assist customer/project management to make selection

Evaluate and select software in a single user environment

Research possible software solutions

Evaluate the software against the criteria

Review results of evaluation and assist customer/project management to make selection

Install and configure stand alone systems hardware

Agree suitable hardware configuration with user

Agree suitable configuration of machine and peripherals for the required use

Plan agreed hardware installation or re-configuration

Oversee installation of hardware

Install any additional boards required

Oversee any re-configuring or up-grading of system

Install applications for users on stand alone system

Agree suitable software and hardware with user

Plan agreed application installation

Install, configure and customise software packages to users requirements

Set up software operating environment for package

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Train and support users of stand alone system

Demonstrate the operation of the configured system to the user

Provide instruction in data back-up and recovery

Provide basic training in using software packages and hardware configurations

Diagnose user hardware and software problems and suggest solutions

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NVQs

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NATIONAL VOCATIONAL QUALIFICATIONS

Information Technology

LEVEL 4

35

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NVQs
Information Technology
Level 4

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Central Computer Services Management NVQ Level 4

Plan and control installation of hardware

Schedule delivery, installation and commissioning of hardware according to defined strategy

Prepare site and layout of equipment

Arrange provision of required systems to maintain required conditions and power supply resources

Define acceptance procedures

Monitor the delivery and installation of the new hardware

Monitor overall performance of computer system and advise on additional requirements

Manage system performance against agreed service levels

Maintain system configuration to ensure required service levels are provided

Consult with customers and management on capacity requirements

Plan and initiate agreed changes to configuration

Establish and monitor support for computer system

Review engineering support requirements

Determine and agree with equipment maintainer the levels of preventative maintenance needed

Schedule preventative maintenance

Define systems software support requirements

Define interfaces between service provision staff and support staff

Monitor engineering and software support

Manage application service levels

Participate in service level agreements negotiations

Present service level agreement requirements to staff

Monitor performance against agreed service levels

Manage resolution of computer service problems

Specify problem resolution procedures

Specify fault and problem recording procedures

Monitor, review and revise problem resolution procedures

Respond to reports of recurring faults

Recognise impact of faults on service levels and liaise with customer

Define and control engineering support procedures

Define fault reporting and call-out procedures

Define fault escalation procedures

Monitor, review and revise engineering support procedures

Respond to reports of deficiencies in support

Manage change and configuration control

Define change and configuration control procedures

Audit effectiveness of change and configuration control procedures

Implement security policies

Define additional procedures specific to service centre

Ensure staff are familiar with defined security procedures

Monitor practice of procedures

Respond to any breaches of security

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Computer Network System Selection & Installation Supervision NVQ Level 4

Evaluate and select hardware in a multi-user environment

Produce technical specifications for possible hardware solution from customer requirements

Define objectives for hardware supplier investigation and accept results

Evaluate the hardware against the criteria

Review results of evaluation with customer/project management

Evaluate and select software in a multi-user environment

Produce technical specifications for possible software solution from customer requirements

Define objectives for software supplier investigation and accept results

Evaluate the software against the defined criteria

Review results of evaluation with customer/project management

Plan and oversee hardware acceptance

Establish features/facilities required to be tested from requirements specification

Monitor and review progress

Obtain customer acceptance

Plan and control the installation of hardware

Schedule delivery, installation and commissioning of hardware according to defined strategy

Prepare site and layout of equipment

Arrange provision of required systems to maintain required conditions and power supply resources

Define acceptance procedures

Monitor the delivery and installation of the new hardware

Define and control engineering support procedures for networks

Define fault reporting and call-out procedures

Define fault escalation procedures

Monitor, review and revise engineering support procedures

Respond to reports of deficiencies in support

Customer Implementation Support NVQ Level 4

All of these units

Supervise completed information system assembly and test

Establish test criteria and strategy from system specification

Define system test plans

Define system test data

Define test schedule

Evaluate all results

Investigate needs and plan for customer training

Investigate training needs

Draw up training plans

Co-ordinate and monitor the effectiveness of training delivery

Manage the installation of a new system

Define required installation activities

Plan the installation process

Monitor and review progress

Review operational procedures and define possible amendments

Quality assure and inspect documentation

Arrange acceptance of system

Establish information system support procedures

Review customer requirements and develop support proposals

Negotiate customer response requirements for support

Agree monitoring and call out procedures

Agree maintenance procedures

Agree review procedures

Plus either of the following 2 units

Evaluate and select hardware in a multi-user environment

Produce technical specifications for possible hardware solution from customer requirements

Define objectives for hardware supplier investigation and accept results

Evaluate the hardware against the criteria

Review results of evaluation with customer/project management

Evaluate and select software in a multi-user environment

Produce technical specifications for possible software solution from customer requirements

Define objectives for software supplier investigation and accept results

Evaluate the software against the defined criteria

Review results of evaluation with customer/project management

Information Systems Analysis
NVQ Level 4

Develop functional information requirements model

Establish and model information requirements

Maintain models

Create and maintain corporate data dictionary

Create required models

Maintain models

Co-ordinate the investigation of an existing information system

Plan the investigation

Define objectives for the investigation(s) and accept the results

Finalise documentation and present results

Create a requirements specification

Define scope of requirements

Define objectives for the investigator(s) and accept the results

Formulate a requirements specification

Justify and present the requirements specification

Evaluate alternative designs for an information system

Select a set of possible alternative approaches

Define objectives for design exercises and accept results

Evaluate alternative designs

Present alternative designs to the customer and resolve implementation requirements

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NVQ Information Systems Production Supervision NVQ Level 4

All of these units

Supervise the design of an information system

Identify development constraints

Define and specify acceptance, test procedures and data

Design security and data protection procedures

Design clerical procedures to interface to computer system

Define objectives for the system, designers and accept design

Prepare final design documentation

Present and justify the design to the customer to gain approval

Supervise detailed software design

Review and accept overall system design

Design and specify system acceptance tests

Agree detailed software design criteria

Review and accept design with designers

Present and justify the design for acceptance

Supervise completed information system assembly and test

Establish test criteria and strategy from system specification

Define system test plans

Define system test data

Define test schedule

Evaluate all results

Manage the installation of a new system

Define required installation activities

Plan the installation process

Monitor and review progress

Review operational procedures and define possible amendments

Quality assure and inspect documentation

Arrange acceptance of system

Supervise the production and implementation of an information system

Review overall project plan and define implementation targets

Define targets for subordinates

Monitor progress against plan

Monitor quality of product

Take part in regular technical review meetings

Report to overall project management

Respond to progress, resource or organisational problems

Plus any one of these units

Evaluate and select hardware in a multi-user environment

Produce technical specifications for possible hardware solution from customer requirements

Define objectives for hardware supplier investigation and accept results

Evaluate the hardware against the criteria

Review results of evaluation with customer/project management

Evaluate and select software in a multi-user environment

Produce technical specifications for possible software solution from customer requirements

Define objectives for software supplier investigation and accept results

Evaluate the software against the defined criteria

Review results of evaluation with customer/project management

Plan and oversee hardware acceptance

Establish features/facilities required to be tested from requirements specification

Monitor and review progress

Obtain customer acceptance

Multi-User Computer System Selection & Installation Supervision NVQ Level 4

Evaluate and select hardware in a multi-user environment

Produce technical specifications for possible hardware solution from customer requirements

Define objectives for hardware supplier investigation and accept results

Evaluate the hardware against the criteria

Review results of evaluation with customer/project management

Evaluate and select software in a multi-user environment

Produce technical specifications for possible software solution from customer requirements

Define objectives for software supplier investigation and accept results

Evaluate the software against the defined criteria

Review results of evaluation with customer/project management

Plan and oversee hardware acceptance

Establish features/facilities required to be tested from requirements specification

Monitor and review progress

Obtain customer acceptance

Plan and control the installation of hardware

Schedule delivery, installation and commissioning of hardware according to defined strategy

Prepare site and layout of equipment

Arrange provision of required systems to maintain required conditions and power supply resources

Define acceptance procedures

Monitor the delivery and installation of the new hardware

Define and control engineering support procedures

Define fault reporting and call-out procedures

Define fault escalation procedures

Monitor, review and revise engineering support procedures

Respond to reports of deficiencies in support

Network Computer Services Management NVQ Level 4

Plan and control the installation of hardware

Schedule delivery, installation and commissioning of hardware according to defined strategy

Prepare site and layout of equipment

Arrange provision of required systems to maintain required conditions and power supply sources

Define acceptance procedures

Monitor the delivery and installation of the new hardware

Manage network performance, development and configuration

Monitor network performance against agreed service levels

Maintain network configuration to ensure required service levels are met

Identify needs for network development

Agree required network development

Plan and initiate agreed changes

Establish and monitor network support

Review engineering support requirements

Determine and agree with equipment maintainer the levels of preventative maintenance needed

Schedule preventative maintenance

Define network software support requirements

Define interfaces between network staff and support staff

Monitor engineering and software support

Manage resolution of problems on networks

Specify problem resolution procedures

Specify fault and problem recording procedures

Monitor, review and revise problem resolution procedures

Respond to reports of recurring faults

Recognise impact of faults against service levels and liaise with customer

Define and control engineering support procedures for networks

Define fault reporting and call-out procedures

Define fault escalation procedures

Monitor, review and revise engineering support procedures

Respond to reports of deficiencies in support

Manage change and configuration control

Define change and configuration control procedures

Audit effectiveness of change and configuration control procedures

Implement security policies

Define additional procedures specific to service centre

Ensure staff are familiar with defined security procedures

Monitor practice of procedures

Respond to any breaches of security

BTEC – builds better qualifications for work

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Your next step

Please see your training officer or personnel department, talk to the local careers advisory service, or contact colleges in your area. Your Training and Enterprise Council may also be able to help.

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BTEC

NVQs

– better qualifications for better jobs

NATIONAL VOCATIONAL QUALIFICATIONS

Information Technology for End Users

LEVELS

1-3

53

NVQs – better qualifications for work

NVQs are the work qualifications that employers have always been asking for, because NVQs measure what you can do, as well as how much you know and understand about the job you do.

Practical, work-based qualifications

An NVQ is the ideal qualification for people who intend to work, or already work, in a particular industry, service or business. On-the-job training is more relevant than book-learning, so the ability to run an organisation or repair a motor vehicle is what counts, rather than having GCSEs.

For every industry and business

NVQs are already available for most kinds of work (and the range is constantly being added to, in order to meet new employment needs).

NVQs are written proof of usable workplace skills which can be put to profitable use by an employer straight away. They range from basic Level 1, for everyday routine tasks, up to Level 5 professional skills – so there's a way to develop skills and build a career ladder that benefits both employer and employee.

For every kind of person

There is training for NVQs, but there's no laid-down course of study: someone – anyone of any age, provided they're over 16 – who can prove the ability to do the job, with the required degree of skill, is entitled to be assessed for an NVQ.

An NVQ is recognition and certification of someone's ability to perform specific tasks. It may involve study to reach the appropriate level. On the other hand, some candidates or employees may already possess the necessary skills – acquiring an NVQ certificate can be valuable recognition of those skills, especially in areas where previously no formal qualification existed.

NVQs
Information Technology for End Users
Levels 1–3

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NVQ Level 1	4
NVQ Level 2	8
NVQ Level 3	13

Using Information Technology NVQ Level 1

All of these units

Enter data into a computer system

Prepare source data

Enter data into system

Check correct status of resulting data

Check system status on completion

Retrieve and format existing data to generate specified routine information

Prepare to generate information

Locate and retrieve required data from source

Format retrieved data items and generate required information

Check and secure resulting information

Check system status on completion

Present information to meet defined requirements

Prepare for presentation of information

Output information to meet presentational requirements

Monitor and check presentation of information

Check systems status on completion

Contribute to maintaining the working information technology environment

Comply with health and safety requirements

Comply with requirements of display screen equipment regulations

Comply with fire and other emergency instructions and procedures

Comply with commercial and legislative requirements

Comply with equipment security requirements

Maintain awareness of regulations in force

Plus 4 of the following 6 units

Make use of data storage media and other computer consumable items

Take data storage media from store

Use data storage media

Store data storage media

Store documentation

Draw and record usage of consumables

Create and present textual information

Prepare data and system to carry out work

Create textual information

Present textual information

Identify problems and take appropriate action

Check system status on completion

Produce graphical information for presentations

Prepare data and system to carry out work

Check source material

Create images

Create presentation materials

Incorporate illustrative material into documents from existing stored data items

Review presentation materials

Identify problems and take appropriate action

Check system status on completion

Create and present numerical information

Prepare data and system to carry out work

Create numerical information

Create numerical information in graphical format

Present numerical information

Identify problems and take appropriate action

Check system status on completion

57.

Store and produce structured data and information from a computer based information management system

Prepared data and system to carry out work

Enter data to a computer based information storage system

Interrogate information system to obtain data

Generate information

Produce standard reports

Identify problems and take appropriate action

Check system status on completion

Process customer transaction and queries using information technology

Identify transaction requirements

Prepare for transaction entry

Enter transaction

Process transaction

Identify problems and take appropriate action

Check and protect system state

Additional units

Review information technology facilities used

Comment on the features and facilities used

Evaluate system and equipment against health and safety and display screen equipment requirements

Evaluate user documentation

Review evaluation with others and identify improvements

Organise and maintain own data on data storage media

Monitor and maintain the storage of files

Retrieve and edit files

Maintain security and control access to data and files

Protect data stored on media

Carry out data restore operations

Take care of networked equipment and system used

Ensure equipment is maintained in good working order

Carry out defined equipment cleaning and basic maintenance procedures

Ensure data and system integrity are maintained

Operate distributed computer system terminal

Switch on terminal

Access application processing system

Execute terminal application security procedures

Switch off terminal

Using Information Technology NVQ Level 2

All of these units

Prepare data and information technology to create defined product

Prepare data to carry out work

Select and prepare IT facilities to carry out work

Recognise and respond to failure of application to run correctly

Create and format information from existing stored data items

Locate and retrieve data necessary to produce required information

Manipulate data to create required information

Prepare and secure results for output

Identify problems in creation of information and take appropriate action

System status is checked on completion

Produce information and evaluate product

Prepare for creation of product

Initiate and monitor production of information

Respond to production problems

Check system status on completion

Review final product

Evaluate available information technology facilities and use made of them

Review own use of facilities available

Improve own use of facilities available

Review procedures for use of facilities available

Review findings and proposals with others and implement improvements

Implement agreed improvements and assist others to make use of them

Plus 3 of the following 6 units

Make use of computer application facilities in a work group environment

Gain access to and make use of the facilities available to the work group

Make use of shared data

Maintain effective working relationships

Create and present complex textual information incorporating graphical images and diagrams

Locate, retrieve and enter data necessary to produce required information

Set up data files

Set up templates and layouts

Create required documents

Produce information

Incorporate illustrative material into documents

Monitor and check output of information

Check system status on completion

Review information produced

Create complex information for presentation and exhibition materials

Review production and presentation requirements including alternatives for final product

Prepare information to carry out work

Set up templates and layouts and create information to meet requirements

Create required information and presentations

Produce materials

Monitor and check production of information and materials

Check system status on completion

Review information produced

Maintain library of presentation and exhibition materials and information

Manipulate and analyse numerical information

Prepare and enter source data

Set up formulae and calculations

Test formulae and calculations

Manipulate and present numerical information

Store and document routines

Review information requirements and production

Derive and manipulate complex information

Prepare and enter source data

Generate information from multiple pre-stored data items

Produce customised reports

Monitor and check production of information and reports

Review information requirements and production

Identify user originated problems and assist with resolution

Respond to problems and requests for assistance

Diagnose and resolve problems and respond to user

Ensure unresolved problems or requests are escalated appropriately

Liaise with support service providers

Additional Units

Create and maintain files and directories

Create new file structures and directories

Delete redundant files

Reorganise file storage

Create backup

Restore from backup

Archive files

Recover from archive

Set up and maintain file structures for a library of information

Set up defined file structures to maintain library of information

Set up required information structures for storage and presentation within a library system

Maintain the access and security codes of a library management system

Maintain library system records

Oversee the maintenance of files and file structures

Oversee backup procedures

Oversee file management procedures

Monitor and control data storage capacity in accordance with defined procedures

Identify problems in file maintenance and take appropriate action

Communicate electronically using information technology

Distribute information using electronic communications facilities

Manage receipt of electronically transmitted information

Manage access to electronically held information held by self and third parties

Assist and support users on networked computer application systems

Select appropriate training material

Provide basic instruction in the use of hardware

Provide basic instruction in the use of network

Provide basic instruction in data backup and recovery procedures

Assist user to access available support

Provide assistance on request

Operate computer network applications and peripheral hardware

Ensure hardware is set up ready for use

Start up network

Monitor for and respond to messages and problems as they occur

Close down computer systems

Controlling Use of Information Technology NVQ Level 3

All of these units

Establish requirements and supervise production of work using information technology

Review and agree requirements for final production and methods for carrying out work

Identify and define data and information which is to be used

Define methods and standards for production

Set up available installed tools and facilities to meet work requirements

Control production of work using information technology

Maintain records of customer requirements

Allocate and schedule work

Monitor activities and respond to customer enquiries

Check ongoing quality of work and review products with customers

Maintain records of activities and performance

Review and improve effectiveness of use of installed information technology

Monitor and maintain quality of work being produced

Monitor use of installed information technology with staff

Review use of information technology with staff

Implement agreed changes within own authority

Implement defined fire and health and safety procedures in an information technology environment

Define additional instructions specific to local environment

Ensure staff are familiar with defined procedures and instructions

Monitor health and safety practice

Review procedures with staff and management

Implement defined commercial and legislative requirements and procedures to maintain an information technology environment

Define additional instructions specific to local environment

Design records to be maintained

Ensure staff are familiar with defined procedures and instructions

Maintain records to organisational and legislative requirements

Maintain and monitor activities to comply with legislative requirements

Review procedures with staff and management

Plus 3 of the following 5 units

Create automated procedures to assist customers

Discuss and agree requirements with the customer

Document and agree the design

Create procedure(s) to meet the design

Take part in progress reviews

Create test plans and test data

Carry out tests

Create a completed procedure package for hand over

Plan and control changes to installed IT environment

Review and define required changes in business terms

Assist user to create a change specification

Create change plans

Control implementation of changes

Participate in post implementation reviews and carry out follow up checks on the completed change

Control problem escalation and review

Supervise problem resolution

Supervise problem escalation

Analyse problem information and statistics

Take part in review of problem resolution procedures

Oversee information technology training delivery to staff

Identify individuals with training needs from records and plans

Schedule agreed training

Make staff and resources available for agreed training

Coordinate and monitor the effectiveness of training delivery

Maintain records of training given

Provide instruction in standards and procedures for use of applications software

Explain the standards and procedures for carrying out work using information technology

Demonstrate use of application to meet defined standards and procedures

Check that user has understood instruction

Additional Units

Train and support users on networked computer application systems

Demonstrate the operation of the configured network to the user

Provide training in using applications software and hardware configurations

Provide instruction in the disciplines and procedures required when working in a network environment

Provide instruction in data backup and recovery

Diagnose user hardware and software problems and suggest solutions

Monitor and maintain networked or distributed applications system

Set up and monitor routine maintenance system

Diagnose problems through systematic testing procedures

Liaise with maintenance and repair organisations

Oversee third party system maintenance

Monitor maintenance of software and hardware

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ITITO, 16 Berners Street, London W1P 3DD
Telephone: 071-580 6677

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